

## **CLAIMS**

### **What the invention claimed is:**

1. A fan speed control comprised of a power adapter, a CPU (central processing unit), a current-limit resistor, a capacitor,  
5 a TRIAC, and a switch module, and installed in a fan for controlling the operation speed of the fan motor of said fan; wherein:

said power adapter has at least two power input terminals and one power output terminal, said at least two power input  
10 terminals being coupled to AC power source and electrically connected to one end of said fan motor to provide the fan motor with the necessary working power, said power output terminal being electrically coupled to said CPU to provide said CPU with the necessary working voltage;

15 said CPU has at least one signal input terminal, one control input terminal, one signal output terminal, and a phase splitting program programmed therein, said signal input terminal being electrically connected in series to the power input terminals of said power adapter through said current-limit resistor to obtain  
20 synchronous signal frequency as input signal, said signal output terminal being connected in series to said capacitor and then the gate of said TRIAC for enabling said CPU to control triggering of said TRIAC;

said TRIAC has the gate connected in series to said capacitor, and the anode and cathode respectively connected to said fan motor and the power output terminal of said power adapter, so that said fan motor, said TRIAC and said power adapter form a loop  
5 in which said TRIAC controls the operation speed of said fan motor;

said switch module has one end connected to the control input terminal of said CPU for controlling the output state of the signal output terminal of said CPU, and an opposite other end  
10 connected to the power output terminal of said power adapter.

2. The fan speed control as claimed in claim 1, wherein said switch module is a single-button two-speed (High and Low) switch module matching with a display module having a high-speed indicator light and a low-speed indicator light.

15 3. The fan speed control as claimed in claim 1, wherein said switch module is a 4-button three-speed (High, Medium, and Low) and one OFF switch module matching with a display module, said display module comprising a high-speed indicator light, a medium-speed indicator light, and a low-speed indicator light.

20 4. The fan speed control as claimed in claim 1, wherein said switch module is a single-button three-speed (High, Medium, and Low) and one OFF switch module matching with a display module, said display module comprising a high-speed indicator light, a

medium-speed indicator light, and a low-speed indicator light.

5. The fan speed control as claimed in claim 1, wherein said switch module is a single-button three-speed (High, Medium, and Low) switch module matching with a display module and a remote-control receiver, said display module comprising a high-speed indicator light, a medium-speed indicator light, and a low-speed indicator light, said remote-control receiver being adapted to receive control signal from a remote controller for driving said CPU to control the operation speed of said fan motor via said TRIAC.

6. The fan speed control as claimed in claim 1, wherein said switch module is a single-button four-speed (High, Medium, Low, and Natural-wind) switch module matching with a display module, said display module comprising a high-speed indicator light, a medium-speed indicator light, a low-speed indicator light, and a natural-wind indicator light.